From: PETERSON Jenn L
To: Eric Blischke/R10/USEPA/US@EPA; Robert W. Gensemer
Cc: Burt Shephard/R10/USEPA/US@EPA; Carrie A. Smith; Joe Goulet/R10/USEPA/US@EPA
Subject: RE: Multi Plate objectives and results
Date: 02/06/2008 12:45 PM

It is already in there.

-----Original Message-----
From: Blischke.Eric@epamail.epa.gov
[mailto:Blischke.Eric@epamail.epa.gov]
Sent: Wednesday, February 06, 2008 12:11 PM
To: Robert W. Gensemer
Cc: Shephard.Burt@epamail.epa.gov; Carrie A. Smith;
Goulet.Joe@epamail.epa.gov; PETERSON Jenn L
Subject: RE: Multi Plate objectives and results

We should include as a macroinvertebrate or epibenthic measurement endpoint. Although I thought the amount of tissue mass obtained was limited, it gets a fair amount of discussion in Section 6 and 11 of the Round 2 report. Let's include as a LOE. Ultimately, I do think that the limited data should be accounted for in the weighting scheme.

Eric

"Robert W. Gensemer" <rgensemer@parametrix.com>
02/06/2008 11:26 AM

To: Burt Shephard/R10/USEPA/US@EPA, Joe Goulet/R10/USEPA/US@EPA, "Carrie A. Smith" <CSmith@parametrix.com>
cc: Eric Blischke/R10/USEPA/US@EPA, "PETERSON.Jennifer@deq.state.or.us" <PETERSON.Jennifer@deq.state.or.us>
Subject: RE: Multi Plate objectives and results

Thanks, Burt and Joe. Based on this (matches my previous understanding too) I will be deleting the periphyton tissue ME from assessment endpoint #1.

Do you want me to add this as an invertebrate ME? If so, we will need to decide where and what to call it. FYI, this would also trigger an AE table entry (take note, Carrie), and a new WOE entry and weighting (do we know enough to assign a weighting?).

-Bob

-----Original Message-----
From: Shephard.Burt@epamail.epa.gov
[mailto:Shephard.Burt@epamail.epa.gov]
Sent: Wednesday, February 06, 2008 11:21 AM
To: Goulet.Joe@epamail.epa.gov
Cc: Blischke.Eric@epamail.epa.gov; PETERSON.Jennifer@deq.state.or.us;
Robert W. Gensemer
Subject: Re: Multi Plate objectives and results

Thanks for looking this up, Joe. I recommend we take this measure out of the aquatic plant section and put it in the benthic macroinvertebrate section as another line of evidence. The question then becomes what to call the line. I still seem to recall analytical chemistry results from these samples, which could be compared to tissue benchmarks. We may also want to evaluate the abundance, species richness, etc. metrics to see if they're useful as measures of the epibenthic community structure, as affected by surface water contaminants. Don't know without looking at the report if this is feasible, but since we don't have any other benthic community structure information from the site (one of the three legs of the sediment quality triad), its worth a look to see if the abundance data are useable in that context.

Best regards,

Burt Shephard
Risk Evaluation Unit
Office of Environmental Assessment (OEA-095)
U.S. Environmental Protection Agency, Region 10
1200 6th Avenue
Seattle, WA 98101

Telephone: (206) 553-6359
Fax: (206) 553-0119

e-mail: Shephard.Burt@epa.gov

"If your experiment needs statistics to analyze the results, then you ought to have done a better experiment"
- Ernest Rutherford

Joe Goulet/R10/USEPA/US
02/06/2008 10:35 AM

To: Burt Shephard/R10/USEPA/US
cc: PETERSON.Jennifer@deq.state.or.us, Eric Blischke/R10/USEPA/US, rgensemer@parametrix.com
Subject: Multi Plate objectives and results

Burt,

I cut some verbiage out of the Multiplate report that describes the objectives and the type of organisms collected.

Let me know if we need more description.

Joe

Portland Harbor RI/FS
Round 2 Multiplate Invertebrate Tissue
Data Report
June 12, 2006
DRAFT

1.1 ROUND 2 SAMPLING OBJECTIVES

The purpose of the Round 2 sampling was to fill in data gaps for the RI and risk assessments as well as initiate data collection for the FS. The specific objectives of the Portland Harbor multiplate invertebrate sampling were to: * Collect information on measured constituents in invertebrate tissue samples that represent epibenthic organisms within the study area for use in the fish, bird, and mammalian exposure models in the ERA. * Collect information on measured constituents in invertebrate tissue samples that represent epibenthic organisms within the study area for use in the tissue-residue line-of-evidence for estimating risk to benthic invertebrates in the ERA. * Collect information on measured constituents in invertebrate tissue samples that represent epibenthic organisms within the study area for use in the food web model to develop risk-based cleanup goals. It is anticipated that the multiplate biomass will represent accumulation via the surface water pathway.

4.2 SUMMARY OF TAXONOMIC RESULTS

Table 4-2 summarizes the results of the taxonomic analyses of 24 multiplate samplers collected at the 10 sampling stations (see Figure 2-1). The total abundance of invertebrates identified at each station ranged between 736 and 2,738 individuals. Because the total abundance depended on the number of multiplate samplers processed, the abundance per 0.116 m2 (the area of one multiplate) was calculated for each station. The abundance per 0.116 m2 ranged between 263.7 and 912.7 individuals. The number of taxa identified ranged from 17 at Stations LW2-MIT002 and LW2-MIT007 to 38 at Station LW2-MIT001. The most commonly identified invertebrates belonged to four major taxonomic groups: Annelida (worms), Chironomidae (midges/blood worms), Crustacea (amphipods), and Anthozoa (which include sea anemones, sea pens, and, in this study, the freshwater Hydra sp.). The complete taxonomic data set, as well as the diversity and other metrics derived from the data, are presented in Appendix D. Daphnids were found in 17 of the 24 multiplate samplers. Because daphnids are not part of the benthic community, they were sorted and identified in a separate effort. The abundance of daphnids at each station ranged between 0 and 1,281 individuals (0 to 640.5 individuals per 0.116 m2), with the highest abundance at Station LW2-MIT002 (Table 4-3). Only two daphnid species were identified, with Sida crystallina being the most abundant. The complete daphnid taxonomic data set is presented in Appendix D.